

## HAZEL AS AN IMPORTANT LARVAL FOODPLANT OF THE BARRED UMBER *PLAGODIS PULVERARIA* L. (LEP.: GEOMETRIDAE)

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During the course of three years work on the lepidopterous larvae on understorey and scrub species in Bernwood Forest on the Bucks/Oxon border I have come to the conclusion that hazel is the most important larval host plant in the Forest for the barred umber, *Plagodis pulveraria* L. This is of interest as Skinner (1984) gives only willow and birch as the host plants. Going back through the literature South (1961) gives "birch, willow, ash etc", Newman & Leeds (1913) give willow only and at the other extreme Barrett (1901) and Allan (1949) both give birch, willow, oak, hazel, ash and wild cherry, with Barrett's order (as given) possibly indicating the order of preference.

The barred umber was regularly trapped in both the Oxfordshire (Waterperry Wood) and Bucks (Oakley Wood) parts of the Forest, where it was mainly associated with the unplanted areas that retain hazel. It was less frequent in the conifer plantations although birch was the most common native woody perennial amongst the conifers and was abundant in some places. The moth was never numerous at traps but was easy to beat as a larva in late July and August. The accompanying table shows the frequency of barred umber larvae and of all macrolepidopterous larvae on the three commonest shrubby species at six sites within Bernwood Forest. Each sample was obtained by beating the chosen shrubby species in 60 separate spots. At each spot a Bignall beating tray (area 1.02m) was placed such that it was covered by foliage and all foliage within the range of a 1 metre-long beating-stick was jarred sharply five times. The samples thus represent the number of larvae in a standard volume of space occupied by the shrub, this being the best way of comparing which shrubs give best value in terms of the number of larvae they support. White (1975) has shown that beating approaches 100% collection of larvae if done in calm, dry conditions.

Table 1 shows that the larvae of the barred umber occur at a low density of approximately 2 per 60 m<sup>3</sup> of hazel bush but are notably more common on hazel than on birch or hawthorn. Although no larvae occurred in the birch samples in 1986 one was found and reared on birch in August 1985. Willow was not common enough in the wood to provide the sample sizes required for Table 1.

Note that the densities of total macro-lepidopterous larvae on birch in August are notably higher than for hawthorn or hazel.

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